CLAIMS

What is claimed is:

1. A method for the reclamation and use of rework dough created in the process of forming a final good comprising the steps of:

providing a rework dough;

adding water at a first temperature above ambient temperature and a catalyst to said rework dough;

mixing together said rework, said catalyst, and said water to form a reprocessed dough batter, thereby raising the temperature of said reprocessed batter to a temperature which is substantially equal to that of said first temperature;

cooling said reprocessed batter to a second temperature; and adding said reprocessed batter to a new batch of batter.

- 2. The method of Claim 1, wherein said cooling to said second temperature is done in a controlled manner with regards to time and rate.
- 3. The method of Claim 2, wherein said reprocessed dough batter is held at said second temperature until said reprocessed dough batter is added to said new batch of dough in a ratio of approximately 1.3:1.

- 4. The method of Claim 1, wherein said hot water is added to said dough reworks at a temperature in the range of about 80 degrees Fahrenheit to about 110 degrees Fahrenheit.
- 5. The method of Claim 4, wherein the temperature of said hot water is between approximately 90 and 105 degrees Fahrenheit.
- 6. The method claim 1, wherein said catalyst comprises dextrose, sugar, wheat gluten, an enzyme and a carrier.
 - 7. The method of claim 6, wherein said enzyme is L-cystine.
- 8. The method of claim 6, wherein said carrier is selected from the group consisting of flour and soy.
- 9. The method of Claim 8, wherein said catalyst preferably comprises about 58-62% of sugar, 18-22% of dextrose, 8-12% of wheat gluten, 0.75-1.50% of L-cystine; and 8-12% of flour by weight.
- 10. The method of Claim 1, wherein said batch of reprocessed batter includes approximately 33-38% said water, 58-62% said rework dough and 3-6% of said catalyst by weight.

- 11. The method of Claim 1, wherein said second temperature is in a range of 38 to 54 degrees Fahrenheit.
- 12. The method of Claim 11, wherein said second temperature is preferably about 40 to 50 degrees Fahrenheit.
- 13. The method of Claim 12, wherein said second temperature is achieved by the steps of :

pumping said reprocessed dough batter to a heat exchanger;

cooling said reprocessed dough batter in a controlled manner from said initial temperature to said second temperature in approximately 30 minutes.

- 14. A catalyst for the reuse of rework dough produced during the production of baked goods to produce a reprocessed batter comprising dextrose, sugar, wheat gluten, an enzyme and a carrier.
 - 15. The catalyst of claim 14, wherein said enzyme is L-cystine.
- 16. The catalyst of claim 14, wherein said carrier is selected from the group consisting of flour and soy.

- 17. The catalyst of Claim 16, wherein said catalyst preferably comprises about 58-62% of sugar, 18-22% of dextrose, 8-12% of wheat gluten, 0.75-1.50% of L-cystine, and 8-12% of flour by weight.
- 18. The catalyst of Claim 16, wherein about 20 pounds of said catalyst preferably comprises about 12 pounds of sugar, 4 pounds of dextrose, 2 pounds of wheat gluten, 4 ounces of L-cystine, and 2 pounds of flour.
- 19. A system to reclaim rework for use in producing a dough comprising:

a mixer adapted to mix a rework, hot water and a catalyst into a reprocessed batter;

a heat exchanger adapted to cool said reprocessed batter;

a first transport system to move said reprocessed batter from said mixer to said heat exchanger;

a holding tank adapted to store said reprocessed batter at a given temperature; and

a second transport system to move said reprocessed batter from said heat exchanger to said holding tank.

20. The system of Claim 19, wherein said mixer includes a mixing vat capable of mixing said rework, said hot water and said catalyst into a homogenous mixture in a mixing time period of about 90 seconds or less.

- 21. The system of Claim 19, wherein said heat exchanger cools said reprocessed batter from a first temperature between 80 and 110 degrees Fahrenheit to a second temperature between 35 and 55 Fahrenheit in a cooling time period of about 30 minutes.
- 22. The system of Claim 19, wherein said holding tank is capable of holding said reprocessed batter at a temperature between 35 and 55 degrees Fahrenheit.
- 23. A batter for creating baked goods comprising about 30% to 55% fresh ingredients, about 45% to 70% processed rework.
- 24. The batter of claim 23, wherein said fresh ingredients comprise flour, sugar, salt, and yeast.
- 25. The batter of claim 24, wherein said processed rework comprises a catalyst, water, and rework.
- 26. The batter of claim 25, wherein said catalyst preferably comprises about 58-62% of sugar, 18-22% of dextrose, 8-12% of wheat gluten, 0.75-1.50% of L-cystine; and 8-12% of flour by weight.